

## **SECTION 1: IDENTIFICATION**

1.1 GHS Product identifier: UF431 - LustraFoam® with Carnauba Wax 431

#### 1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Foaming sealant for use in commercial car washes. New and Improved Since April 2019.

Uses advised against: All uses not specified in this section or in section 7.3

### 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc. 1997 American Blvd 54115 De Pere - United States Phone.: 9203372175 - Fax: 9203379410 chemcompliance@cleaningsystemsinc.com http://cleaningsystemsinc.com

**1.4 Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

# SECTION 2: HAZARD(S) IDENTIFICATION

## 2.1 Classification of the substance or mixture:

# 29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Acute Tox. 5: Acute toxicity if swallowed, Category 5, H303 Acute Tox. 5: Acute toxicity on contact with skin, Category 5, H313 Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400 Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Irrit. 2: Skin irritation, Category 2, H315

# 2.2 Label elements:

# 29 CFR 1910.1200:

Danger



### Hazard statements:

Acute Tox. 5: H303 - May be harmful if swallowed Acute Tox. 5: H313 - May be harmful in contact with skin Aquatic Acute 1: H400 - Very toxic to aquatic life Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects Eye Dam. 1: H318 - Causes serious eye damage Skin Irrit. 2: H315 - Causes skin irritation

#### Precautionary statements:

P264: Wash thoroughly after use
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P312: Call a POISON CENTER or doctor/physician if you feel unwell
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively
Other hazards which do not result in classification:

### Non-applicable

2.3



## 3.1 Substances:

Non-applicable

# 3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

## Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

	Identification	Chemical name/Classification	(	Concentration
CAS:	Proprietary	Surfactant Mixture Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1C: H314; STOT RE 2: H373 - 🔗 🌜 🤇 Danger	<b>\$</b>	35 - <65 %
CAS:	68603-42-9	Amides, coco, N,N-bis(hydroxyethyl) Carc. 2: H351; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning		<5 %
CAS:	587-98-4	C.I.Acid Yellow 36 Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning	<u>}</u>	<5 %
CAS:	79-14-1	Glycollic acid Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger		<5 %
CAS:	111-42-2	Diethanolamine Acute Tox. 4: H302; Carc. 2: H351; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT RE 2: H373 - Danger		<5 %
To obt	ain more informat	ion on the hazards of the substances consult sections 8, 11, 12, 15 and 16.		

## SECTION 4: FIRST-AID MEASURES

#### 4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

#### By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

#### By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

#### By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

#### By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

### 4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

## 4.3 Indication of immediate medical attention and special treatment needed, if necessary:

### Non-applicable

# SECTION 5: FIRE-FIGHTING MEASURES

## 5.1 Suitable (and unsuitable) extinguishing media:



# SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

### 5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

### Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

## 6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

## 6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

## 6.4 Reference to other sections:

See sections 8 and 13.

# SECTION 7: HANDLING AND STORAGE

## 7.1 Precautions for safe handling:

#### A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

#### C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

-4 °F

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

## 7.2 Conditions for safe storage, including any incompatibilities:

## A.- Technical measures for storage

Minimum Temp.:



# SECTION 7: HANDLING AND STORAGE (continued)

Maximum Temp.: 120 °F

## B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

## 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

Identification		Environmental limits			
Ethyl acetate	8-hour TWA PEL	400 ppm	1400 mg/m <sup>3</sup>		
CAS: 1/1-78-6	Ceiling Values - TWA PEL				

### 8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

#### B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

#### C.- Specific protection for the hands

Pictogram	PPE	Remarks
Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

### D.- Ocular and facial protection

Pictogram	PPE	Remarks
Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.
	Anti-slip work shoes	Replace before any evidence of deterioration.



- Additional emergency meas	ures		
Emergency measure	Standards	Emergency measure	Standards
+	ANSI Z358-1 ISO 3864-1:2002	©+ T	DIN 12 899 ISO 3864-1:2002
Emergency shower		Eyewash stations	

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

 9.1
 Information on basic physical and chemical properties:

 For complete information see the product datasheet.

 Appearance:

 Physical state at 68 °F:

 Liquid

 Appearance:
 Opaque

Appearance:	Opaque
Color:	Red
Odor:	Fruity
Odour threshold:	Non-applicable *
Volatility:	
Boiling point at atmospheric pressure:	221 °F
Vapour pressure at 68 °F:	2334 Pa
Vapour pressure at 122 °F:	92.18 (12.29 kPa)
Evaporation rate at 68 °F:	Non-applicable *
Product description:	
Density at 68 °F:	Non-applicable *
Relative density at 68 °F:	Non-applicable *
Dynamic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 104 °F:	Non-applicable *
Concentration:	Non-applicable *
pH:	>2
Vapour density at 68 °F:	Non-applicable *
Partition coefficient n-octanol/water 68 °F:	Non-applicable *
Solubility in water at 68 °F:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Flammability:	
Flash Point:	Non Flammable (>199.4 °F)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	800 °F
Lower flammability limit:	Non-applicable *
*Not relevant due to the nature of the product, not providing	information property of its hazards.



SEC	TION 9: PHYSICAL AND CHEMICA	L PROPERTIES (continued)	
	Upper flammability limit:	Non-applicable *	
	Explosive:		
	Lower explosive limit:	Non-applicable *	
	Upper explosive limit:	Non-applicable *	
9.2	Other information:		
	Surface tension at 68 °F:	Non-applicable *	
	Refraction index:	Non-applicable *	
	*Not relevant due to the nature of the product, no	providing information property of its hazards.	

# SECTION 10: STABILITY AND REACTIVITY

# 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

## 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

### 10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Not applicable	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

#### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

# SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

#### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- A- Ingestion (acute effect):
  - Acute toxicity : The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
  - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- B- Inhalation (acute effect):
  - Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances
  - classified as dangerous for this effect. For more information see section 3.
- C- Contact with the skin and the eyes (acute effect):



# SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
  - Carcinogenicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
  - IARC: Benzyl acetate (3); Coumarin (3); Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B)
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- E- Sensitizing effects:
  - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
  - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

## Other information:

Non-applicable

#### Specific toxicology information on the substances:

Identification	A	Acute toxicity		
Glycollic acid	LD50 oral	2040 mg/kg	Rat	
CAS: 79-14-1	LD50 dermal	Non-applicable		
	LC50 inhalation	11 mg/L (4 h) (ATEi)		
Amides, coco, N,N-bis(hydroxyethyl)	LD50 oral	12200 mg/kg	Rat	
CAS: 68603-42-9	LD50 dermal	Non-applicable		
	LC50 inhalation	Non-applicable		
C.I.Acid Yellow 36	LD50 oral	5100 mg/kg	Rat	
CAS: 587-98-4	LD50 dermal	Non-applicable		
	LC50 inhalation	Non-applicable		
Diethanolamine	LD50 oral	710 mg/kg	Rat	
CAS: 111-42-2	LD50 dermal	12200 mg/kg	Rabbit	
	LC50 inhalation	Non-applicable		

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):



Surfactant Mixture         LCS0         0.1 - 1 mg/L         File           CAS: Proprietary         EC50         0.1 - 1 mg/L         Crusta           Amides, coco, N,N-bis(hydroxyethyl)         LCS0         3.6 mg/L (96 h)         Brachydanio rerio         File           CAS: 68603-42-9         EC50         2.2 mg/L (34 h)         Daphnia magna         Crusta           EC50         2.2 mg/L (96 h)         Scenedesmus subspicatus         Alg           Glycollic acid         LCS0         164 mg/L (92 h)         Lcso         144 mg/L (92 h)         Daphnia magna         Crusta           CAS: 79-14-1         EC50         141 mg/L (48 h)         Daphnia magna         Crusta         EC50         144 mg/L (72 h)         Selenastrum capricornutum         Alg           Diethanolamine         LCS0         800 mg/L (24 h)         Carassius auratus         File         EC50         180 mg/L (24 h)         Daphnia magna         Crusta           CAS: 111-42-2         EC50         180 mg/L (24 h)         Daphnia magna         Crusta         EC50         180 mg/L (24 h)         Daphnia magna         Crusta           Glycollic acid         COD         Non-applicable         Concentration         100 mg/L         CAS: 79-14-1         EC50         10.0 3 g O2/g         Concentration			1					
CAS: Proprietary         EC50         0.1 - 1 mg/L         Crusts           Amides, coco, N,N-bis(hydroxyethyl)         LC50         3.6 mg/L (96 h)         Brachydanio rerio         Fis           CAS: 68603-42-9         EC50         4.2 mg/L (34 h)         Daphnia magna         Crusts           CAS: 79-14-1         EC50         164 mg/L (96 h)         Scenedesmus subspicatus         Aig           Diethanolamine         LC50         164 mg/L (96 h)         Lepomis macrochirus         Fis           CAS: 79-14-1         EC50         141 mg/L (48 h)         Daphnia magna         Crusts           CAS: 79-14-1         EC50         144 mg/L (72 h)         Selenastrum capriconnutum         Aig           Diethanolamine         LC50         800 mg/L (24 h)         Carassius auratus         Fis           CAS: 111-42-2         EC50         180 mg/L (24 h)         Daphnia magna         Crusts           Identification         Degradability         Biodegradability         Biodegradability         Aig           Glycolic acid         COD         Non-applicable         Concentration         100 mg/L         CAS: 79-14-1           Identification         BOD5/COD         Non-applicable         % Biodegradable         86 %         68 %         68 %         69 % <t< td=""><td>Ident</td><td>ification</td><td></td><td>Acute toxicity</td><td></td><td>Specie</td><td>es</td><td>Genus</td></t<>	Ident	ification		Acute toxicity		Specie	es	Genus
$\begin{tabular}{ c c c c c c c } \hline ECS0 & 0.1 - 1 mg/L & & & Alg \\ \hline Amides, coco, N,N-bis(hydroxyethyl) & & & LCS0 & 3.6 mg/L (96 h) & & Brachydanio rerio & Fis \\ \hline CAS: 68603-42-9 & & ECS0 & 4.2 mg/L (34 h) & & Daphnia magna & & Crusta \\ \hline ECS0 & 2.2 mg/L (96 h) & & & Scenedesmus subspicatus & Alg \\ \hline Glycollic acid & & & LCS0 & 164 mg/L (96 h) & & & Leponis macrochirus & Fis \\ \hline CAS: 79-14-1 & & & ECS0 & 141 mg/L (48 h) & & Daphnia magna & & Crusta \\ \hline ECS0 & 144 mg/L (72 h) & & Selenastrum capricomutum & Alg \\ \hline Diethanolamine & & & LCS0 & 800 mg/L (24 h) & & Carassius auratus & Fis \\ \hline CAS: 111-42-2 & & & ECS0 & 144 mg/L (72 h) & & Selenastrum capricomutum & Alg \\ \hline ECS0 & 180 mg/L (24 h) & & & Carassius auratus & Fis \\ \hline CAS: 111-42-2 & & & & ECS0 & 180 mg/L (24 h) & & & & & \\ \hline Identification & & & & & & & & \\ \hline Identification & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & \\ \hline Identification & & & & & & & & & & \\ \hline Diethanolamine & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & \\ \hline Identification & & & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & & & \\ \hline Slocelic acid & & & & & & & & & & & \\ \hline CAS: 79-14-1 & & & & & & & & & & & \\ \hline \end{array}$	Surfactant Mixture		LC50	0.1 - 1 mg/L (96 h)				Fish
Amides, coco, N,N-bis(hydroxyethyl)         LC50         3.6 mg/L (96 h)         Brachydanio rerio         Fis           CAS: 68603-42-9         EC50         2.2 mg/L (34 h)         Daphnia magna         Cruste           Glycollic acid         LC50         164 mg/L (96 h)         Scenedesmus subspicatus         Alg           Glycollic acid         LC50         164 mg/L (96 h)         Lepomis macrochirus         Fis           CAS: 79-14-1         EC50         141 mg/L (48 h)         Daphnia magna         Cruste           EC50         141 mg/L (24 h)         Daphnia magna         Cruste           CAS: 79-14-1         EC50         141 mg/L (24 h)         Daphnia magna         Cruste           EC50         141 mg/L (24 h)         Daphnia magna         Cruste         EC50         180 mg/L (24 h)         Daphnia magna         Cruste           CAS: 111-42-2         EC50         180 mg/L (24 h)         Daphnia magna         Cruste         EC50         75 mg/L (72 h)         Scenedesmus subspicatus         Alg           Persistence and degradability:           Identification         Degradability         Biodegradability         Biodegradability           Glycollic acid         COD         Non-applicable         Concentration         100 mg/L	CAS: Proprietary		EC50	0.1 - 1 mg/L				Crustacea
CAS: 68603-42-9         EC50         4.2 mg/L (34 h)         Daphnia magna         Cruste           Glycollic acid         LC50         164 mg/L (96 h)         Scenedesmus subspicatus         Alg           CAS: 79-14-1         EC50         2.2 mg/L (96 h)         Lepomis macrochirus         Fis           CAS: 79-14-1         EC50         141 mg/L (48 h)         Daphnia magna         Crusta           Diethanolamine         EC50         44 mg/L (72 h)         Selenastrum capricornutum         Alg           CAS: 111-42-2         EC50         180 mg/L (24 h)         Carassius auratus         Fis           CAS: 79-14-1         EC50         180 mg/L (24 h)         Daphnia magna         Crusta           CAS: 111-42-2         EC50         180 mg/L (24 h)         Daphnia magna         Crusta           CAS: 79-14-1         Identification         Degradability         Biodegradability         Alg           Glycollic acid         COD         Non-applicable         Concentration         100 mg/L           CAS: 79-14-1         COD         Non-applicable         % Biodegradabile         86 %           Diethanolamine         BOD5         0.03 g 02/g         Concentration         100 mg/L           CAS: 111-42-2         COD         1.52 g 02/g         <			EC50	0.1 - 1 mg/L				Algae
EC50         2.2 mg/L (96 h)         Scenedesmus subspicatus         Aig           Glycollic acid         LC50         164 mg/L (96 h)         Lepomis macrochirus         Fis           CAS: 79-14-1         EC50         141 mg/L (48 h)         Daphnia magna         Cruste           Diethanolamine         LC50         800 mg/L (24 h)         Selenastrum capricornutum         Alg           Diethanolamine         LC50         800 mg/L (24 h)         Carassius auratus         Fis           CAS: 111-42-2         EC50         180 mg/L (72 h)         Selenastrum capricornutum         Alg           Persistence and degradability:         EC50         75 mg/L (72 h)         Scenedesmus subspicatus         Alg           Glycollic acid         BOD5         Non-applicable         Concentration         100 mg/L           CAS: 79-14-1         COD         Non-applicable         Period         14 days           BOD5/COD         Non-applicable         Period         14 days         BOD5         0.03 g O2/g         Concentration         100 mg/L           CAS: 111-42-2         COD         1.52 g O2/g         Period         21 days         BOD5/COD         0.02         % Biodegradable         54 %           Bioaccumulative potential:         Identification         Bioac	Amides, coco, N,N-bis(hydroxy	ethyl)	LC50	3.6 mg/L (96 h)		Brachydan	io rerio	Fish
Glycollic acid         LC50         164 mg/L (96 h)         Lepomis macrochirus         Fis           CAS: 79-14-1         EC50         141 mg/L (48 h)         Daphnia magna         Crusts           Diethanolamine         LC50         800 mg/L (72 h)         Selenastrum capricornutum         Alg           CAS: 111-42-2         EC50         180 mg/L (72 h)         Carassius auratus         Fis           EC50         180 mg/L (72 h)         Scenedesmus subspicatus         Alg           Persistence and degradability:         EC50         75 mg/L (72 h)         Scenedesmus subspicatus         Alg           Glycollic acid         CoD         Non-applicable         Concentration         100 mg/L           CAS: 79-14-1         BOD5         Non-applicable         Period         14 days           BOD5/COD         Non-applicable         Period         14 days         86 %           Diethanolamine         BOD5         0.03 g 02/g         Concentration         100 mg/L           CAS: 111-42-2         COD         1.52 g 02/g         Period         21 days           BOD5/COD         0.02         % Biodegradable         34 %           Bioaccumulative potential:         Elect 3         Elect 3           CAS: 79-14-1         Identification </td <td>CAS: 68603-42-9</td> <td></td> <td>EC50</td> <td>4.2 mg/L (34 h)</td> <td></td> <td>Daphnia n</td> <td>magna</td> <td>Crustacea</td>	CAS: 68603-42-9		EC50	4.2 mg/L (34 h)		Daphnia n	magna	Crustacea
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			EC50	2.2 mg/L (96 h)		Scenedesmus s	subspicatus	Algae
EC50         44 mg/L (72 h)         Selenastrum capricornutum         Alg           Diethanolamine         LC50         800 mg/L (24 h)         Carassius auratus         Fis           CAS: 111-42-2         EC50         180 mg/L (24 h)         Daphnia magna         Crusta           EC50         75 mg/L (72 h)         Scenedesmus subspicatus         Alg           Persistence and degradability:           Identification         Degradability         Biodegradability         Alg           Glycollic acid         COD         Non-applicable         Concentration         100 mg/L           CAS: 79-14-1         COD         Non-applicable         Period         14 days           BOD5/COD         Non-applicable         % Biodegradable         86 %           Diethanolamine         BOD5         0.03 g O2/g         Concentration         100 mg/L           CAS: 111-42-2         COD         1.52 g O2/g         Period         21 days           BOD5/COD         0.02         % Biodegradable         54 %           Bioaccumulative potential:         Identification         Bioaccumulation potential           Glycollic acid         BCF         3         Pow Log         -1.11	Glycollic acid		LC50	164 mg/L (96 h)		Lepomis mad	crochirus	Fish
LC50         800 mg/L (24 h)         Carassius auratus         Fis           CAS: 111-42-2         EC50         180 mg/L (24 h)         Daphnia magna         Crusta           EC50         180 mg/L (24 h)         Daphnia magna         Crusta           Persistence and degradability:         Identification         Degradability         Scenedesmus subspicatus         Alg           Glycollic acid         COD         Non-applicable         Concentration         100 mg/L           CAS: 79-14-1         COD         Non-applicable         Period         14 days           BOD5/COD         Non-applicable         Period         14 days           BOD5/COD         Non-applicable         % Biodegradabile         86 %           Diethanolamine         COD         1.52 g O2/g         Cencentration         100 mg/L           CAS: 111-42-2         COD         1.52 g O2/g         Period         21 days           BOD5/COD         0.02         % Biodegradable         54 %           Bioaccumulative potential:         Identification         Bioaccumulation potential           Glycollic acid         CAS: 79-14-1         Bioaccumulation potential	CAS: 79-14-1		EC50	141 mg/L (48 h)		Daphnia n	nagna	Crustacea
CAS: 111-42-2         EC50         180 mg/L (24 h)         Daphnia magna         Crusta           Persistence and degradability:           Identification         Degradability         Scenedesmus subspicatus         Alg           Glycollic acid         BOD5         Non-applicable         Concentration         100 mg/L           CAS: 79-14-1         BOD5         Non-applicable         Period         14 days           BOD5/COD         Non-applicable         Period         14 days         86 %           Diethanolamine         BOD5         0.03 g O2/g         Concentration         100 mg/L           CAS: 111-42-2         COD         1.52 g O2/g         Period         21 days           BOD5/COD         0.02         % Biodegradable         54 %           Bioaccumulative potential:         Bioaccumulation potential         Bioaccumulation potential           Glycollic acid         CAS: 79-14-1         BOF         3			EC50	44 mg/L (72 h)		Selenastrum ca	pricornutum	Algae
EC50       75 mg/L (72 h)       Scenedesmus subspicatus       Alg         Persistence and degradability:       Identification       Degradability       Biodegradability       Alg         Glycollic acid       BOD5       Non-applicable       Concentration       100 mg/L         CAS: 79-14-1       COD       Non-applicable       Period       14 days         BOD5/COD       Non-applicable       % Biodegradable       86 %         Diethanolamine       BOD5       0.03 g O2/g       Concentration       100 mg/L         CAS: 111-42-2       COD       1.52 g O2/g       Period       21 days         BOD5/COD       0.02       % Biodegradable       54 %         Bioaccumulative potential:         Bioaccumulation potential         Glycollic acid       BCF       3         CAS: 79-14-1       Pow Log       -1.11	Diethanolamine		LC50	800 mg/L (24 h)		Carassius a	auratus	Fish
Persistence and degradability:         Identification       Degradability       Biodegradability         Glycollic acid       BOD5       Non-applicable       Concentration       100 mg/L         CAS: 79-14-1       COD       Non-applicable       Period       14 days         BOD5/COD       Non-applicable       % Biodegradable       86 %         Diethanolamine       BOD5       0.03 g O2/g       Concentration       100 mg/L         CAS: 111-42-2       COD       1.52 g O2/g       Period       21 days         BOD5/COD       0.02       % Biodegradable       54 %         Bioaccumulative potential:         Identification         Glycollic acid       BCF       3         CAS: 79-14-1       Pow Log       -1.11	CAS: 111-42-2		EC50	180 mg/L (24 h)		Daphnia n	magna	Crustacea
Identification     Degradability     Biodegradability       Glycollic acid     BOD5     Non-applicable     Concentration     100 mg/L       CAS: 79-14-1     COD     Non-applicable     Period     14 days       BOD5/COD     Non-applicable     % Biodegradable     86 %       Diethanolamine     BOD5     0.03 g O2/g     Concentration     100 mg/L       CAS: 111-42-2     COD     1.52 g O2/g     Period     21 days       BOD5/COD     0.02     % Biodegradable     54 %   Bioaccumulative potential:       Identification     Bioaccumulation potential       Glycollic acid     BCF     3       CAS: 79-14-1     Pow Log     -1.11			EC50	75 mg/L (72 h)		Scenedesmus s	subspicatus	Algae
Glycollic acid       BOD5       Non-applicable       Concentration       100 mg/L         CAS: 79-14-1       COD       Non-applicable       Period       14 days         BOD5/COD       Non-applicable       % Biodegradable       86 %         Diethanolamine       BOD5       0.03 g O2/g       Concentration       100 mg/L         CAS: 111-42-2       COD       1.52 g O2/g       Period       21 days         BOD5/COD       0.02       % Biodegradable       54 %         Bioaccumulative potential:         Identification         Glycollic acid       BCF       3         CAS: 79-14-1       Pow Log       -1.11	Persistence and degradab	ility:						
CAS: 79-14-1       COD       Non-applicable       Period       14 days         BOD5/COD       Non-applicable       % Biodegradable       86 %         Diethanolamine       BOD5       0.03 g O2/g       Concentration       100 mg/L         CAS: 111-42-2       COD       1.52 g O2/g       Period       21 days         BOD5/COD       0.02       % Biodegradable       54 %         Bioaccumulative potential:         Identification       Bioaccumulation potential         Glycollic acid       BCF       3         CAS: 79-14-1       Pow Log       -1.11	Identifica	ation	D	egradability		Biode	egradability	
BOD5/COD       Non-applicable       % Biodegradable       86 %         Diethanolamine       BOD5       0.03 g O2/g       Concentration       100 mg/L         CAS: 111-42-2       COD       1.52 g O2/g       Period       21 days         BOD5/COD       0.02       % Biodegradable       54 %         Bioaccumulative potential:         Identification         Bioaccumulation potential         Glycollic acid         CAS: 79-14-1	Glycollic acid		BOD5	Non-applicable	Conce	entration	100 m	ıg/L
Diethanolamine         BOD5         0.03 g O2/g         Concentration         100 mg/L           CAS: 111-42-2         COD         1.52 g O2/g         Period         21 days           BOD5/COD         0.02         % Biodegradable         54 %           Bioaccumulative potential:           Bioaccumulation potential           Glycollic acid         BCF         3           CAS: 79-14-1         Pow Log         -1.11	CAS: 79-14-1		COD	Non-applicable	Period	d	14 da	ys
CAS: 111-42-2         COD         1.52 g O2/g         Period         21 days           BOD5/COD         0.02         % Biodegradable         54 %           Bioaccumulative potential:           Bioaccumulative potential:           Identification         Bioaccumulation potential           Glycollic acid         BCF         3           CAS: 79-14-1         Pow Log         -1.11			BOD5/COD	Non-applicable	% Bio	odegradable	86 %	
BOD5/COD     0.02     % Biodegradable     54 %       Bioaccumulative potential:       Bioaccumulative potential:       Bioaccumulation potential       Bioaccumulation potential       Glycollic acid       CAS: 79-14-1	Diethanolamine		BOD5	0.03 g O2/g	Conce	entration	100 m	ıg/L
Bioaccumulative potential: Identification Bioaccumulation potential Glycollic acid CAS: 79-14-1 BCF 3 Pow Log -1.11	CAS: 111-42-2		COD	1.52 g O2/g	Period	d	21 da	ys
Identification     Bioaccumulation potential       Glycollic acid     BCF     3       CAS: 79-14-1     Pow Log     -1.11			BOD5/COD	0.02	% Bio	odegradable	54 %	
Glycollic acid         BCF         3           CAS: 79-14-1         Pow Log         -1.11	Bioaccumulative potential:							
CAS: 79-14-1 Pow Log -1.11		Identification				Bioaccu	mulation poten	tial
					BC	F	3	
Detection	Glycollic acid							
Potential Low	,				Pov	w Log	-1.11	
	,					tential	-1.11 Low 1	

### 12.4 Mobility in soil:

CAS: 111-42-2

Identification	Absorption/desorption		Volatility	
Diethanolamine	Кос	Non-applicable	Henry	Non-applicable
CAS: 111-42-2	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	3.4E-2 N/m (299.21 °F)	Moist soil	Non-applicable

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

# 12.6 Other adverse effects:

Not described

# SECTION 13: DISPOSAL CONSIDERATIONS

## 13.1 Disposal methods:

## Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

#### Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

-1.43

Low

Pow Log Potential



Transpor	t of dangerous goods by land:		
-	ard to 49 CFR on the Transport of	Dangerous Goods:	
-	UN number:	Non-applicable	
	UN proper shipping name: Transport hazard class(es):	Non-applicable	
14.3	Labels:	Non-applicable	
14.4		Non-applicable Non-applicable	
14.4	Packing group, if applicable: Environmental hazard:	Non-applicable	
14.5			
14.6	transport or conveyance either w	• needs to be aware of, or needs to comply with, in connection with ithin or outside their premises	
	Physico-Chemical properties:	see section 9	
14.7	Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	Non-applicable	
Transpor	t of dangerous goods by sea:		
•	ard to IMDG 38-16:		
14.1	UN number:	Non-applicable	
14.2	UN proper shipping name:	Non-applicable	
14.3	Transport hazard class(es):	Non-applicable	
	Labels:	Non-applicable	
14.4	Packing group, if applicable:	Non-applicable	
14.5	Environmental hazard:	No	
14.6			
	Physico-Chemical properties:	see section 9	
14.7	Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	Non-applicable	
Transpor	t of dangerous goods by air:		
-	ard to IATA/ICAO 2019:		
14.1	UN number:	Non-applicable	
14.2	UN proper shipping name:	Non-applicable	
	Transport hazard class(es):	Non-applicable	
	Labels:	Non-applicable	
14.4	Packing group, if applicable:	Non-applicable	
14.5	Environmental hazard:	No	
14.6			
	Physico-Chemical properties:	see section 9	
14.7	Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	Non-applicable	

# SECTION 15: REGULATORY INFORMATION

# 15.1 Safety, health and environmental regulations specific for the product in question:



# SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Diethanolamine California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Diethanolamine

The Toxic Substances Control Act (TSCA) : Amides, coco, N,N-bis(hydroxyethyl) ; C.I.Acid Yellow 36 ; Glycollic acid ;

Diethanolamine

Massachusetts RTK - Substance List: Diethanolamine

New Jersey Worker and Community Right-to-Know Act: Diethanolamine

New York RTK - Substance list: Diethanolamine

Pennsylvania Worker and Community Right-to-Know Law: Diethanolamine

CANADA-Domestic Substances List (DSL): Amides, coco, N,N-bis(hydroxyethyl) ; C.I.Acid Yellow 36 ; Glycollic acid ; Diethanolamine

CANADA-Non-Domestic Substances List (NDSL): Non-applicable

NTP (National Toxicology Program): Non-applicable

Minnesota - Hazardous substances ERTK: Diethanolamine

Rhode Island - Hazardous substances RTK: Diethanolamine

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable

Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Diethanolamine (100 pounds)

## Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

### Other legislation:

The Toxic Substances Control Act (TSCA)

Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

## SECTION 16: OTHER INFORMATION

#### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

#### Texts of the legislative phrases mentioned in section 2:

- H315: Causes skin irritation
- H318: Causes serious eye damage
- H400: Very toxic to aquatic life
- H411: Toxic to aquatic life with long lasting effects

H303: May be harmful if swallowed

H313: May be harmful in contact with skin

## Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

### 29 CFR 1910.1200:

Acute Tox. 4: H302 - Harmful if swallowed Acute Tox. 4: H332 - Harmful if inhaled Aquatic Acute 1: H400 - Very toxic to aquatic life Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects Carc. 2: H351 - Suspected of causing cancer Eye Dam. 1: H318 - Causes serious eye damage Eye Irrit. 2: H319 - Causes serious eye irritation Skin Corr. 1B: H314 - Causes severe skin burns and eye damage Skin Corr. 1C: H314 - Causes severe skin burns and eye damage Skin Irrit. 2: H315 - Causes skin irritation STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)

STOT SE 3: H335 - May cause respiratory irritation

#### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.



# SECTION 16: OTHER INFORMATION (continued)

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA). **Abbreviations and acronyms:** IMDG: International maritime dangerous goods code IATA: International Air Transport Association ICAO: International Civil Aviation Organisation COD: Chemical Oxygen Demand BOD5: 5-day biochemical oxygen demand BCF: Bioconcentration factor LD50: Lethal Dose 50 CL50: Lethal Concentration 50 EC50: Effective concentration 50 Log-POW: Octanol-water partition coefficient Koc: Partition coefficient of organic carbon

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